THE MINISTER OF STATE IN THE DEPARTMENT OF SCIENCE AND TECHNOLOGY IN THE MINISTRY OF SCIENCE AND TECHNOLOGY (SHRI BACHI SINGH RAWAT): (a) STED Project is currently operational in 29 districts of the country.

(b) The STED Project is currently operational in Tamil Nadu in Namakkal and Thiruvallur districts. STED Projects at Tirunelveli, Dharmapuri, Karaikudi and Madurai have completed their duration.

(c) Yes, Sir.

(d) The STED Project in Namakkal and Thiruvallur will promote micro-enterprise development in Tamil Nadu during Tenth Five Year Plan.

Promoting research output

1465. SHRI PREM CHAND GUPTA:
SHRI EKNATH K. THAKUR:

Will the Minister of SCIENCE AND TECHNOLOGY be pleased to state:

(a) whether it is a fact that the research output in India does not match with the scientific and technical manpower community in India;

(b) whether because of this, India has slipped to the 21st place in 2003 from the 13th place in 2002; and

(c) if so, the steps Government propose to take to promote the research output in India?

THE MINISTER OF STATE IN THE DEPARTMENT OF SCIENCE AND TECHNOLOGY IN THE MINISTRY OF SCIENCE AND TECHNOLOGY (SHRI BACHI SINGH RAWAT): (a) to (c) No, Sir. The research output in India is commensurate with scientific and technical manpower. Some of the significant achievements of the Scientific Research during the last five years are as follows: (1) Launching of technology mission mode project in the areas of sugar, advanced composites, fly ash disposal and utilisation and bamboo applications; (2) Developed satellites, launch vehicles and application in space research; (3) Developed missiles (Prithvi, Agni-II, etc.), tank (Arjun), pilotless target aircraft (Lakshya), etc.,

in the area of defence; (4) Self reliance in the areas of nuclear reactor and its entire associated fuel cycle; (5) Application of radiation technology in the areas of health care, agriculture, food preservation, industry and research, has resulted in the release of 22 improved varieties of seeds; (6) Self-sufficiency in food production; (7) Identified potential molecules for the development of vaccines and diagnostic for infectious diseases; (8) Developed diagnostic kits for HIV, hepatitis, dengue, assessment of reproductive hormones, Japanese encephalitis, vaccines for leprosy, drug formulation for septic shock, plant tissue culture protocols, formulation of bio-fertilisers, high protein gene from *Amaranthus* and bioremediation technology for mine spoiled dumps and crude oil spillage; (9) Rice genome mapping; (10) Ginger processing; (11) Archaeological discoveries at Cambay with artefacts dated 7000 to 8000 B.C. (12) Under the Drugs from Sea programme, six organisms possessing anti-diabetic, anti-diarrhoeal, anti-anxiety, anti-cholesterol, anti-bacterial and larvicidal properties were identified and 84 compounds having interesting biological activity and novel chemical structure were isolated; (13) Design fabrication and air-worthiness testing of 9-14 seater light transport aircraft and certification of the 2 seater trainer aircraft HANSA-3; (14) Environment-friendly electric car; (15) Large number of technologies have been developed and commercialised in the fields of drugs and pharmaceuticals, food processing, leather processing products, construction materials and bio-medical devices, etc.; (16) A new Science and Technology Policy has been formulated; (17) As per Science Citation Index (SCI), India's rank has improved to 14th position in 2002 from 15th in 2001.

In order to give further impetus to S&T, the Government have taken Several initiatives such as raising the level of investment on Science and Technology to at least 2% of Gross National Product (GNP) by the end of 10th Plan with enhanced participation in R&D investment by industry, the 10th Plan S&T outlay for scientific agencies has been increased from Rs. 12022.17 Crores in 9th Plan to Rs. 25243.00 Crores, strengthening infrastructure including establishment of several centres of excellence in frontline areas of S&T, manpower development programmes, various fiscal incentives for promoting R&D in industry and launching of 21 Jai Vigyan National S&T Missions etc.